

AMENDMENTS TO THE CLAIMS

1-21 (Cancelled)

22. (Currently Amended) A stereoscopic/multiview three-dimensional video processing system, the system comprising:

a compressor for processing a plurality of video data streams into a plurality of compressed video data streams, and combining the plurality of compressed video data streams into a single integrated elementary stream;

a packetizer for packetizing the single integrated elementary stream into a packetized elementary stream;

a multiplexer for multiplexing the packetized elementary stream; and

a transmitter for outputting the multiplexed stream for transmitting or storing the same,

wherein the multiplexed stream includes: viewpoint information including a viewpoint information flag representing a value corresponding to the number of view points that the packetized elementary stream provides; and display discrimination information including a display mode that the packetized elementary stream provides and is selected by a user from a set of display modes prior to the display discrimination information being included in the multiplexed stream, and

wherein the packetizer constructs a packet and adds header information to the packet to include the viewpoint information and the display discrimination information.

23. (Previously Presented) The system as claimed in claim 22, wherein the plurality of compressed video data streams are multi-channel field based streams.

24. (Previously Presented) The system as claimed in claim 22, wherein the plurality of compressed video data streams are 4-channel field-based elementary streams including odd and even fields of a left three-dimensional stereoscopic image and odd and even fields of a right three-dimensional stereoscopic image, when the display mode is three-dimensional stereoscopic video.

25. (Previously Presented) The system as claimed in claim 22, wherein the plurality of compressed video data streams are $N \times 2$ field-based elementary streams, when the number of the view points is N .

26. (Previously Presented) The system as claimed in claim 23, wherein the display discrimination information represents whether the elementary stream is two or three-dimensional video data.

27. (Currently Amended) A stereoscopic/multiview three-dimensional video processing method, the method comprising:

processing, by a compressor in a video processing system, a plurality of video data streams into a plurality of compressed video data streams;

combining, by a mixer, the plurality of compressed video data streams into a single integrated elementary stream;

packetizing, by a packetizer, the single integrated elementary stream into a packetized elementary stream;

multiplexing, by a multiplexer, the packetized elementary stream; and

[[c)] outputting, by the video processing system, the multiplexed stream for transmitting or storing the same,

wherein the multiplexed stream includes: viewpoint information including a viewpoint information flag representing a value corresponding to the number of view points that the packetized elementary stream provides; and display discrimination information including a display mode that the packetized elementary stream provides and is selected by a user from a set of display modes prior to the display discrimination information being included in the multiplexed stream, and

wherein packetizing comprises: constructing a packet and adding header information to the packet to include the viewpoint information and the display discrimination information.

28. (Previously Presented) The method as claimed in claim 27, wherein the plurality of compressed video data streams are multi-channel field based streams.

29. (Previously Presented) The method as claimed in claim 27, wherein the plurality of compressed video data streams are 4-channel field-based elementary streams including odd and even fields of a left three-dimensional stereoscopic image and odd and even fields of a right three-dimensional stereoscopic image, when the display mode is three-dimensional stereoscopic video.

30. (Previously Presented) The method as claimed in claim 27, wherein the plurality of compressed video data streams are $N \times 2$ field-based elementary streams, when the number of the view points is N .

31. (Currently Amended) A method for decoding a multiplexed video packet stream comprising:

receiving, by a receiver, the multiplexed packet stream which includes viewpoint information and display discrimination information, wherein the viewpoint information includes a viewpoint information flag representing a value corresponding to the number of viewpoints of motion pictures and the display discrimination information represents a display mode of motion pictures that is selected by a user from a set of display modes prior to the display discrimination information being included in the multiplexed packet stream;

detecting, by a decoder, the viewpoint information and the display discrimination information from the multiplexed packet stream;

confirming, by the decoder, a stream format of the multiplexed packet stream and decoding the confirmed packet stream, based on the detected the viewpoint information and the detected display discrimination information,

wherein the multiplexed packet stream includes a plurality of packets, each packet including header information that includes the viewpoint information and the display discrimination information.

32. (Previously Presented) The method as claimed in claim 31, wherein the viewpoint information and the display discrimination information are included in a header of the multiplexed packet stream.

33. (Previously Presented) The method as claimed in claim 31, wherein when the confirmed stream format is a three-dimensional video field shuttering display mode, the step (c) decodes after confirming that 4-channel field-based elementary streams of stereoscopic three-dimensional video are multiplexed into one or more access unit stream using 2-channel elementary streams in the order of the odd field elementary streams of a left image and the even field elementary streams of a right image,

34. (Previously Presented) The method as claimed in claim 31, wherein when the confirmed stream format is a three-dimensional video frame shuttering display mode, the step (c) decodes after confirming that 4-channel field-based elementary streams of stereoscopic three-dimensional video are multiplexed into one or more access unit stream using 4-channel elementary streams in the order of the odd field elementary stream of a left image, the even field elementary stream of the left image, the odd field elementary stream of a right image and the even field elementary stream of the right image.

35. (Previously Presented) The method as claimed in claim 31, wherein when the confirmed stream format is a two-dimensional video display mode, the step (c) decodes after confirming that 4-channel field-based elementary streams of stereoscopic three-dimensional video are multiplexed into one or more access unit stream using 2-channel elementary streams in the order of the odd field elementary stream of a left image and the even field elementary stream of the left image.

36. (Previously Presented) The method as claimed in claim 31, wherein when the confirmed stream format is a three-dimensional multiview video display mode, the step (c) decodes after confirming that $N \times 2$ field-based elementary streams of N -view video are multiplexed into one or more access unit stream sequentially using the individual viewpoints in the order of odd field elementary streams and even field elementary streams by viewpoints.

37. (Currently Amended) A method for decoding a multiplexed video packet stream, the method comprising:

receiving, by a receiver, the multiplexed video packet stream having view point information and display discrimination information;

demultiplexing, by the receiver, and depacketizing the multiplexed video packet stream based on the view point information and the display discrimination information, and thus generating a plurality of compressed video data;

decompressing, by the receiver, a plurality of video data from the plurality of compressed video data,

wherein the viewpoint information includes a viewpoint information flag representing a value corresponding to the number of view points that the packetized elementary stream provides and wherein the display discrimination information includes a display mode that the multiplexed video packet stream provides and is selected by a user from a set of display modes prior to the display discrimination information being included in the multiplexed video packet stream.

wherein the multiplexed video packet stream includes a plurality of packets, each packet including header information that includes the viewpoint information and the display discrimination information.

38. (Previously Presented) The method as claimed in claim 37, wherein the plurality of compressed video data streams are multi-channel field based streams.

39. (Previously Presented) The method as claimed in claim 37, wherein the plurality of compressed video data streams are 4-channel field-based elementary streams including odd and even fields of a left three-dimensional stereoscopic image and odd and even fields of a right three-dimensional stereoscopic image, when the display mode is three-dimensional stereoscopic video.

40. (Previously Presented) The method as claimed in claim 37, wherein the plurality of compressed video data streams are $N \times 2$ field-based elementary streams, when the number of the view points is N .